Nandi Consultants

Date: 28.09.2021

To,

The Executive Engineer,
Yelahanka Division,
Bruhat Bengaluru Mahanagara Palike (BBMP),
Bangalore – 560064

FREQUENCY AND QUALITY REPORT

Sub: Regarding Quality Report for the below mentioned work.

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Sl. NO.	Description of Work	Unit	Quantity	No of samples tested	Standards
1	Providing and laying plain/reinforced cement concrete for side drains walls & bottom thickness 15cm using M20 nominal mix concrete	Cum	1189.71	24	Per 50 Cum
2	Providing TMT Bars Fe 500 steel reinforcement for RCC	MT	83.32	3	Per Dia of steel
3	Construction of granular sub-base Grading-V as Sub-base and drainage layer	Cum	936.61	2	Per 400 Cum
4	Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam	Cum	1404.91	1	Per 1000 Cum
5	Providing and laying dense graded bituminous macadam	Cum	312.07	16	Two Tests per day
6	Providing and laying bituminous concrete 40mm thick	Cum	685.64	16	Two Tests per day

With respect to the above subject & name of the work, we have inspected the work and the Quantity and Quality of above mentioned items of the work was found to be completed satisfactorily for the 1st & Final bill.

NANDI CONSULTANTS * SHIMOGA *

Kamala Nivasa,
9880770762, 9980160007

Nandi Consultants

Nandi Consultants

Date: 11.09.2021

TEST REPORT ON PHYSICAL PROPERTIES OF CEMENT

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Receipt: 11-08-2021

Location: 8th Cross LHS, Judicial Layout

Sampling : Sample collected from the site and Tested

Sample Identification*: Penna OPC 43 grade

Reference to BIS codes:

Test Method:

IS 4031(Part 1):1996(RA 2016) Determination Of Fineness By Dry Sieving

IS 4031(Part 3):1988 (RA 2019) Determination Of Soundness

IS 4031 (Part 4):1988 (RA 2019) Determination Of Consistency Of Standard Cement Paste

IS 4031 (Part 5):1988 (RA 2019) Determination Of Initial & Final Setting Time

IS 4031 (Part 6):1988 (RA 2019) Determination Of Compressive Strength

IS 4031 (Part 11):1988 (RA 2019) Determination Of Density

Specification :

IS 269 : 2015 Ordinary Portland Cement

Condition of sample: Satisfactory

Date of test: 13.08.2021-08.09.2021

Sl.No	Physical properties	Results	Units	Requirement as per IS 269: 2015		
				33 Grade	43 Grade	53 Grade
1	Standard Consistency	30	%	Not specified	Not specified	Not specified
2	Initial Setting time	195	minutes	Min 30 minutes	Min 30 minutes	Min 30 minutes
3	Final Setting time	422	minutes	Max 600 minutes	Max 600 minutes	Max 600 minutes
4	Fineness by dry sieving	9.1	%	–	–	–
6	Soundness (Le Chatelier's Method)	3	mm	Max 10 mm	Max 10 mm	Max 10 mm
7	Density	3.17	g/cm^3	–	–	–

M/S. NANDI CONSULTANTS SHIMOGA

Kamala Nivasa, 9880770762, 9980160007

Nandi Consultants

Date: 18.08.2021

TEST REPORT ON MECHANICAL PROPERTIES OF COARSE AGGREGATES

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Location: 8th Cross LHS, Judicial Layout

Sample Identification: 20mm down size Coarse Aggregate

Sampling : Sample collected from the site and Tested

Reference to BIS codes: **Test Method:**

IS 2386 (Part 1) : 1963 (RA 2016) Particle Size And Shape Cl.2

IS 2386 (Part 3) : 1963 (RA 2016) Specific gravity, density, voids, absorption and bulking

IS 2386 (Part 4) : 1963 (RA 2016) Mechanical Properties

Specification:

IS 383 : 2016 Coarse And Fine Aggregate For Concrete

Condition of sample: Satisfactory

Date of test: 11.08.2021 to 16.08.2021

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 20MM COARSE AGGREGATE:

Total weight taken: 5000 grams

Sl.No	Sieve Designation	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Requirement as per IS 383: 2016 Table-7 (Cl 6.1 & 6.2)	
						Graded	Single-Sized
1	40 mm	0	0	0	100	100	100
2	20 mm	358	358	7.16	92.84	90-100	85-100
3	10 mm	2859	3217	64.34	35.66	25-55	0-20
4	4.75 mm	1548	4765	95.3	4.7	0-10	0-5
5	Pan	235	5000	100	0	---	---

NANDI CONSULTANTS SHIMOGA

Kamala Nivasa, 9880770762, 9980160007

Nandi Consultants

Date: 18.08.2021

TEST REPORT ON PHYSICAL PROPERTIES OF FINE AGGREGATE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Receipt: 11-08-2021

Location: 8th Cross LHS, Judicial Layout

Sampling : Sample collected from the site and Tested

Sample Identification*: M-Sand

Reference to BIS code Test Method:

IS 2386 (Part 1) : 1963 (RA 2016) Particle Size And Shape Cl 2

IS 2386 (Part 3) : 1963 (RA 2016) Specific gravity, density, voids, absorption and bulking

IS 2386 (Part 4) :1963 (RA 2016) Mechanical Properties

Specification:

IS 383 : 2016 Coarse and fine aggregate for concrete

Condition of sample: Satisfactory

Date of test: 11.08.2021 to 16.08.2021

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF FINE AGGREGATE:

Total weight taken: 1000 grams

SL.No	Sieve Designation	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383 : 2016 Table-9, (Cl-6.3)				Remarks
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV	
1	10 mm	0	0	0	100	100	100	100	100	The tested Sample confirms to Grading Zone- II
2	4.75 mm	55	55	5.5	94.5	90-100	90-100	90-100	95-100	
3	2.36 mm	124	179	17.9	82.1	60-95	75-100	85-100	95-100	
4	1.18 mm	207	386	38.6	61.4	30-70	55-90	75-100	90-100	
5	600 micron	202	588	58.8	41.2	15-34	35-59	60-79	80-100	
6	300 micron	217	805	80.5	19.5	5-20	8-30	12-40	15-50	
7	150 micron	142	947	94.7	5.3	0-10	0-10	0-10	0-15	
8	Pan	53	1000	100	0	---	---	---	---	

M/S. NANDI CONSULTANTS Mathi. A.S. SHIMOGA

Kamala Nivasa, 9880770762, 9980160007

Nandi Consultants

Date: 16.08.2021

TEST REPORT ON MECHANICAL PROPERTIES OF REINFORCEMENT STEEL

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Receipt: 11.08.2021

Location: 8th Cross LHS, Judicial Layout

Sampling : Sample collected from the site and Tested

Reference to BIS code Test Method:

IS 1608 (Part 1) : 2018, Metallic Materials, Tensile Testing, Method of Test at Room Temperature

IS 1786 : 2008 (RA 2018) High strength deformed steel bars and wires for concrete reinforcement - Bend & Rebend Test

Specification:

IS 1786 : 2008 (RA 2018) High strength deformed steel bars and wires for concrete reinforcement

Condition of sample: Satisfactory

Date of test: 13.08.2021 to 14.08.2021

Sl. No	Sample Identification	Sample ID No	Nominal size (dia in mm)	Mass per meter (kg/meter)	TENSILE STRENGTH				Bend Test	Re Bend Test
					0.20 % proof stress/ yield stress (N/mm^2)	Tensile strength (N/mm^2)	TS/YS ratio	Elongation percent on gauge length		
1	RD TMT Fe 550	1/1a	08	0.390	575	627	1.09	14.0	–	–
	RD TMT Fe 550	1/1b	08	0.387	–	–	–	–	No Rupture or Crack Visible	–
	RD TMT Fe 550	1/1c	08	0.392	–	–	–	–	–	No Rupture or Crack Visible

M/s. NANDI CONSULTANTS SHIMOGA.

Kamala Niyasa,
9880770762, 9980160007

Nandi Consultants

Date : 07.09.2021

TEST REPORT ON CEMENT CONCRETE CUBES

Name of Client: Executive Engineer Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name of Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Sample Identification*: C C Cube / 150mmx150mmx150mm / M - 20 / 7 days Compressive Strength

Source: Casted & collected from site

Reference to BIS codes: **Test Method:**

IS 516 : 1959 (RA 2018) Methods Of Tests For Strength Of Concrete Cl.5

Specification:

IS 456 : 2000 (RA 2016) Plain And Reinforced Concrete - Code Of Practice

Condition of sample: Satisfactory

Compressive strength : Min 13.33 N/mm2 as per IS 456 : 2000 (RA 2016) Plain And Reinforced Concrete - Code Of Practice

Sl. No	Sample Identification mark on CC Cubes	Location	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of cube (grams)	Failure Load (kN)	Compressive strength (N/mm^2)	Average Compressive strength of 3 Cubes (N/mm^2)
1	1/1	8th Cross Road LHS Judicial Layout	M-20	18-Aug-21	25-Aug-21	150*150 *150	22500	8580	338	15.03	14.8
	1/2	8th Cross Road LHS Judicial Layout	M-20	18-Aug-21	25-Aug-21	150*150 *150	22500	8518	342	15.20	
	1/3	8th Cross Road LHS Judicial Layout	M-20	18-Aug-21	25-Aug-21	150*150 *150	22500	8468	320	14.23	
2	1/1	8th Cross Road RHS Judicial Layout	M-20	18-Aug-21	25-Aug-21	150*150 *150	22500	8549	336	14.94	14.7
	1/2	8th Cross Road RHS Judicial Layout	M-20	18-Aug-21	25-Aug-21	150*150 *150	22500	8471	320	14.23	
	1/3	8th Cross Road RHS Judicial Layout	M-20	18-Aug-21	25-Aug-21	150*150 *150	22500	8566	337	14.98	
3	1/1	10th Main Road LHS Judicial Layout	M-20	18-Aug-21	25-Aug-21	150*150 *150	22500	8519	325	14.45	15.0
	1/2	10th Main Road LHS Judicial Layout	M-20	18-Aug-21	25-Aug-21	150*150 *150	22500	8438	371	16.49	
	1/3	10th Main Road LHS Judicial Layout	M-20	18-Aug-21	25-Aug-21	150*150 *150	22500	8453	315	14.00	

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Sl. No	Sample Identification mark on CC Cubes	Location	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of cube (grams)	Failure Load (kN)	Compressive strength (N/mm²)	Average Compressive strength of 3 Cubes (N/mm²)
20	1/1	5th Cross Road LHS Mathru Layout	M-20	24-Aug-21	31-Aug-21	150*150 *150	22500	8596	361	16.05	15.2
	1/2	5th Cross Road LHS Mathru Layout	M-20	24-Aug-21	31-Aug-21	150*150 *150	22500	8542	325	14.45	
	1/3	5th Cross Road LHS Mathru Layout	M-20	24-Aug-21	31-Aug-21	150*150 *150	22500	8538	342	15.20	
21	1/1	5th Cross Road RHS Mathru Layout	M-20	24-Aug-21	31-Aug-21	150*150 *150	22500	8548	349	15.52	15.4
	1/2	5th Cross Road RHS Mathru Layout	M-20	24-Aug-21	31-Aug-21	150*150 *150	22500	8472	374	16.63	
	1/3	5th Cross Road RHS Mathru Layout	M-20	24-Aug-21	31-Aug-21	150*150 *150	22500	8427	316	14.05	
22	1/1	4th Cross to 5th Cross Connection LHS Mathru Layout	M-20	25-Aug-21	01-Sep-21	150*150 *150	22500	8498	306	13.60	14.0
	1/2	4th Cross to 5th Cross Connection LHS Mathru Layout	M-20	25-Aug-21	01-Sep-21	150*150 *150	22500	8504	306	13.60	
	1/3	4th Cross to 5th Cross Connection LHS Mathru Layout	M-20	25-Aug-21	01-Sep-21	150*150 *150	22500	8487	334	14.85	
23	1/1	4th Cross to 5th Cross Connection RHS Mathru Layout	M-20	25-Aug-21	01-Sep-21	150*150 *150	22500	8440	360	16.00	14.4
	1/2	4th Cross to 5th Cross Connection RHS Mathru Layout	M-20	25-Aug-21	01-Sep-21	150*150 *150	22500	8565	302	13.43	
	1/3	4th Cross to 5th Cross Connection RHS Mathru Layout	M-20	25-Aug-21	01-Sep-21	150*150 *150	22500	8521	311	13.83	

Remarks:
The tested samples meet the requirements of IS 456 : 2000 with respect to above tests conducted.

Checked by :

M/s. NANDI CONSULTANTS * SHIMOGA *

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

Nandi Consultants

Date : 25.09.2021

TEST REPORT ON CEMENT CONCRETE CUBES

Name of Client: Executive Engineer Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and UG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name of Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Sample Identification*: C C Cube / 150mmx150mmx150mm / M - 20 / 28 days Compressive Strength

Source: Casted & collected from site

Reference to BIS codes: **Test Method:**

IS 516 : 1959 (RA 2018) Methods Of Tests For Strength Of Concrete Cl.5

Specification:

IS 456 : 2000 (RA 2016) Plain And Reinforced Concrete - Code Of Practice

Condition of sample: Satisfactory

Compressive strength : Min 20 N/mm2 as per IS 456 : 2000 (RA 2016) Plain And Reinforced Concrete - Code Of Practice

SL No	Sample Identification mark on CC Cubes	Location	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of cube (grams)	Failure Load (kN)	Compressive strength (N/mm²)	Average Compressive strength of 3 Cubes (N/mm²)
1	1/1	8th Cross Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8642	495	22.00	21.8
	1/2	8th Cross Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8495	490	21.78	
	1/3	8th Cross Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8435	487	21.65	
2	1/1	8th Cross Road RHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8492	485	21.56	21.4
	1/2	8th Cross Road RHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8595	476	21.16	
	1/3	8th Cross Road RHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8435	483	21.47	
3	1/1	10th Main Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8402	481	21.38	21.5
	1/2	10th Main Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8456	489	21.74	
	1/3	10th Main Road LHS Judicial Layout	M-20	18-Aug-21	15-Sep-21	150*150 *150	22500	8456	479	21.29	

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Nandi Consultants

Sl. No	Sample Identification mark on CC Cubes	Location	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of cube (grams)	Failure Load (kN)	Compressive strength (N/mm^2)	Average Compressive strength of 3 Cubes (N/mm^2)
20	1/1	5th Cross Road LHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8515	496	22.05	21.3
	1/2	5th Cross Road LHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8426	475	21.12	
	1/3	5th Cross Road LHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8495	465	20.67	
21	1/1	5th Cross Road RHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8489	495	22.00	22.1
	1/2	5th Cross Road RHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8562	489	21.74	
	1/3	5th Cross Road RHS Mathru Layout	M-20	24-Aug-21	21-Sep-21	150*150 *150	22500	8512	510	22.67	
22	1/1	4th Cross to 5th Cross Connection LHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8486	492	21.87	21.9
	1/2	4th Cross to 5th Cross Connection LHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8473	496	22.05	
	1/3	4th Cross to 5th Cross Connection LHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8435	489	21.74	
23	1/1	4th Cross to 5th Cross Connection RHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8497	479	21.29	21.7
	1/2	4th Cross to 5th Cross Connection RHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8465	497	22.09	
	1/3	4th Cross to 5th Cross Connection RHS Mathru Layout	M-20	25-Aug-21	22-Sep-21	150*150 *150	22500	8548	487	21.65	

Remarks:
The tested samples meet the requirements of IS 456 : 2000 with respect to above tests conducted.

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M/s. NANDI CONSULTANTS SHIMOGA.

Checked by

M/s. NANDI CONSULTANTS SHIMOGA.

9880770762, 9980160007
Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.

Nandi Consultants

Nandi Consultants

Date : 03.09.2021

TEST REPORT OF GRADATION FOR GSB

Name of Client: Executive Engineer Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name of Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Sample Collection: 01.09.201

Chainage/Location/Land Mark: Sample collected & Tested at site (7th B Cross Road, B Sector)

Date of testing: 01.09.201

Reference to BIS codes: IS 2386 (Part 1):1963 (RA 2016) Particle Size and Shape Cl.2

Layer: GSB

Wt of sample taken (gm): 10000

Sl No	Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	As per MORTH 5th Revsion Table 400.1 (Garding V)
1	75	0	0	0.00	100.00	100
2	53	250	250	2.50	97.50	80-100
3	26.5	1856	2106	21.06	78.94	55-90
4	9.5	3565	5671	56.71	43.29	35-65
5	4.75	1056	6727	67.27	32.73	25-50
6	2.36	1356	8083	80.83	19.17	10-20
7	0.85	956	9039	90.39	9.61	2-10
8	0.425	802	9841	98.41	1.59	0-5
9	pan	159	10000	100.00	0.00	-

Remarks:
The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

M/s. NANDI CONSULTANTS * SHIMOGA. *

Checked by:

M/s. NANDI CONSULTANTS * SHIMOGA. *

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

Date : 03.09.2021

TEST REPORT OF GRADATION FOR GSB

Name of Client: Executive Engineer Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name of Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Sample Collection: 31.08.2021

Chainage/Location/Land Mark: Sample collected & Tested at site (1st A Cross Someshwara Nagara)

Date of testing: 31.08.2021

Reference to BIS codes: IS 2386 (Part 1):1963 (RA 2016) Particle Size and Shape Cl.2

Layer: GSB

Wt of sample taken (gm): 10000

Sl No	Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	As per MORTH 5th Revsion Table 400.1 (Garding V)
1	75	0	0	0.00	100.00	100
2	53	285	285	2.85	97.15	80-100
3	26.5	1750	2035	20.35	79.65	55-90
4	9.5	3256	5291	52.91	47.09	35-65
5	4.75	1525	6816	68.16	31.84	25-50
6	2.36	1210	8026	80.26	19.74	10-20
7	0.85	1056	9082	90.82	9.18	2-10
8	0.425	565	9647	96.47	3.53	0-5
9	pan	353	10000	100.00	0.00	-

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

M/S. NANDI CONSULTANTS * SHIMOGA *

Checked by:

M/S. NANDI CONSULTANTS * SHIMOGA *

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM

Name of Client: Executive Engineer Bruhat Bangalore Mahanagara Palike
Address: Yelahanka Division
Package No: Package - 13
Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions
Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204
Date of Sample Collection: 08.09.2021
Chainage/Location /Land Mark: Tested in site (17th Cross Judicial Layout)
Date of testing: 08.09.2021
Type of Mix: Dense Bituminous Macadam

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for DBM Grade II (50-75mm) Bitumen Content 4.5 min VG-30
2. Weight of Mixture after Test, gm	477	
3. Weight of Bitumen Extracted, gm	23	
4. Bitumen content in %	4.6	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 477 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500-10
37.5	0	0.00	0.00	100.00	100
26.5	23	4.82	4.82	95.18	90 - 100
19	50	10.48	15.30	84.70	71-95
13.2	80	16.77	32.08	67.92	56-80
4.75	85	17.82	49.90	50.10	38-54
2.36	74	15.51	65.41	34.59	28-42
0.3	86	18.03	83.44	16.56	7-21
0.075	42	8.81	92.24	7.76	2-8

Remarks:
The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement

M/S. NANDI CONSULTANTS SHIMOGA.

Contractor/Contractor Representative

Client(AE/AEE/EE)

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM

Name of Client: Executive Engineer Bruhat Bangalore Mahanagara Palike
Address: Yelahanka Division
Package No: Package - 13
Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)
Name Contractor: M/s Nidhi Constructions
Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204
Date of Sample Collection: 09.09.2021
Chainage/Location /Land Mark: Tested in site (3rd Cross Road, Chikkabommasandra)
Date of testing: 09.09.2021
Type of Mix: Dense Bituminous Macadam

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for DBM Grade II (50-75mm) Bitumen Content 4.5 min VG-30
2. Weight of Mixture after Test, gm	477.41	
3. Weight of Bitumen Extracted, gm	22.59	
4. Bitumen content in %	4.52	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 477.41 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500-10
37.5	0	0.00	0.00	100.00	100
26.5	25	5.24	5.24	94.76	90 - 100
19	82	17.18	22.41	77.59	71-95
13.2	75	15.71	38.12	61.88	56-80
4.75	79	16.55	54.67	45.33	38-54
2.36	47	9.84	64.51	35.49	28-42
0.3	95	19.90	84.41	15.59	7-21
0.075	49	10.26	94.68	5.32	2-8

Remarks:
The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

M/s. NANDI CONSULTANTS * SHIMOGA * PMC

Contractor/Contractor Representative

Client(AE/AEE/EE)

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM

Name of Client:	Bruhat Bangalore Mahanagara Palike
Address:	Yelahanka Division
Package No:	Package - 13
Name of Work:	Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)
Name Contractor:	M/s Nidhi Constructions
Name of PMC:	M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204
Date of Sample Collection:	10.09.2021
Chainage/Location /Land Mark:	Tested in site (1st Main Road Sharadha Nagara)
Date of testing:	10.09.2021
Type of Mix:	Dense Bituminous Macadam

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for DBM Grade II (50-75mm) Bitumen Content 4.5 min VG-30
2. Weight of Mixture after Test, gm	478	
3. Weight of Bitumen Extracted, gm	23	
4. Bitumen content in %	4.5	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 478 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500-10
37.5	0	0.00	0.00	100.00	100
26.5	34	7.12	7.12	92.88	90 - 100
19	53	11.10	18.22	81.78	71-95
13.2	82	17.17	35.39	64.61	56-80
4.75	91	19.06	54.45	45.55	38-54
2.36	62	12.98	67.43	32.57	28-42
0.3	68	14.24	81.68	18.32	7-21
0.075	58	12.15	93.82	6.18	2-8

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

Contractor/Contractor Representative

M/s. NANDI CONSULTANTS * SHIMOGA *

PMC

Client(AE/AEE/EE)

Nandi Consultants

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM

Name of Client: Bruhat Bangalore Mahanagara Palike
Address: Yelahanka Division
Package No: Package - 13
Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)
Name Contractor: M/s Nidhi Constructions
Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204
Date of Sample Collection: 11.09.2021
Chainage/Location /Land Mark: Tested in site (7th B Cross Road B Sector)
Date of testing: 11.09.2021
Type of Mix: Dense Bituminous Macadam

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for DBM Grade II (50-75mm) Bitumen Content 4.5 min VG-30
2. Weight of Mixture after Test, gm	477.23	
3. Weight of Bitumen Extracted, gm	23	
4. Bitumen content in %	4.55	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 477 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500-10
37.5	0	0.00	0.00	100.00	100
26.5	30	6.29	6.29	93.71	90 - 100
19	86	18.02	24.31	75.69	71-95
13.2	74	15.51	39.81	60.19	56-80
4.75	65	13.62	53.43	46.57	38-54
2.36	46	9.64	63.07	36.93	28-42
0.3	96	20.12	83.19	16.81	7-21
0.075	57	11.94	95.13	4.87	2-8

Remarks:
The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

M/s. NANDI CONSULTANTS SHIMOGA.

Contractor/Contractor Representative

PMC

Client(AE/AEE/EE)

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF DENSE BITUMINOUS MACADAM

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Date of Sample Collection: 11.09.2021

Chainage/Location /Land Mark: Tested in site (12th B Main Road B Sector)

Date of testing: 11.09.2021

Type of Mix: Dense Bituminous Macadam

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for DBM Grade II (50-75mm) Bitumen Content 4.5 min VG-30
2. Weight of Mixture after Test, gm	477.25	
3. Weight of Bitumen Extracted, gm	23	
4. Bitumen content in %	4.55	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 477 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500-10
37.5	0	0.00	0.00	100.00	100
26.5	29	6.08	6.08	93.92	90 - 100
19	72	15.09	21.16	78.84	71-95
13.2	79	16.55	37.72	62.28	56-80
4.75	88	18.44	56.16	43.84	38-54
2.36	41	8.59	64.75	35.25	28-42
0.3	85	17.81	82.56	17.44	7-21
0.075	61	12.78	95.34	4.66	2-8

Remarks:
The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

M/s. NANDI CONSULTANTS SHIMOGA

Contractor/Contractor Representative

PMC

Client(AE/AEE/EE)

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF BITUMINOUS CONCRETE

Name of Client: Bruhat Bangaloro Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Chainage/Location /Land Mark: Tested in site (1st A Cross Someshwara Nagara)

Date of testing: 14.09.2021

Type of Mix: Bituminous Concrete

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for Grade II Vide Table 500.17 Binder Content 5.4% min
2. Weight of Mixture after Test, gm	472.58	
3. Weight of Binder Extracted, gm	27.42	
4. Binder content in %	5.48	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 472.58 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500.17
19	0	0.00	0.00	100.00	100
13.2	33	6.98	6.98	93.02	90 - 100
9.5	98	20.74	27.72	72.28	70-88
4.75	87	18.41	46.13	53.87	53-71
2.36	48	10.16	56.29	43.71	42-58
1.18	32	6.77	63.06	36.94	34-48
0.6	38	8.04	71.10	28.90	26-38
0.3	30	6.35	77.45	22.55	18-28
0.15	34	7.19	84.64	15.36	12-20
0.075	32	6.77	91.41	8.59	4-10

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

M/s. NANDI CONSULTANTS * SHIMOGA *

Contractor/Contractor Representative

PMC

Client(AE/AEE/EE)

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF BITUMINOUS CONCRETE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Chainage/Location /Land Mark: Tested in site (1st Main Road Sharadha Nagara)

Date of testing: 16.09.2021

Type of Mix: Bituminous Concrete

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for Grade II Vide Table 500.17 Binder Content 5.4% min
2. Weight of Mixture after Test, gm	472.65	
3. Weight of Binder Extracted, gm	27.35	
4. Binder content in %	5.47	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 472.65 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500.17
19	0	0.00	0.00	100.00	100
13.2	41	8.67	8.67	91.33	90 - 100
9.5	58	12.27	20.95	79.05	70-88
4.75	96	20.31	41.26	58.74	53-71
2.36	67	14.18	55.43	44.57	42-58
1.18	42	8.89	64.32	35.68	34-48
0.6	42	8.89	73.20	26.80	26-38
0.3	30	6.35	79.55	20.45	18-28
0.15	25	5.29	84.84	15.16	12-20
0.075	32	6.77	91.61	8.39	4-10

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

Contractor/Contractor Representative

M/s. NANDI CONSULTANTS PMC SHIMOGA.

Client(AE/AEE/EE)

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF BITUMINOUS CONCRETE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Chainage/Location /Land Mark: Tested in site (6th Cross Road, Sharadha Nagara)

Date of testing: 17.09.2021

Type of Mix: Bituminous Concrete

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for Grade II Vide Table 500.17 Binder Content 5.4% min
2. Weight of Mixture after Test, gm	473	
3. Weight of Binder Extracted, gm	27.5	
4. Binder content in %	5.5	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 473 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500.17
19	0	0.00	0.00	100.00	100
13.2	33	6.98	6.98	93.02	90 - 100
9.5	98	20.74	27.72	72.28	70-88
4.75	87	18.41	46.14	53.86	53-71
2.36	48	10.16	56.30	43.70	42-58
1.18	32	6.77	63.07	36.93	34-48
0.6	38	8.04	71.11	28.89	26-38
0.3	30	6.35	77.46	22.54	18-28
0.15	34	7.20	84.66	15.34	12-20
0.075	32	6.77	91.43	8.57	4-10

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

Contractor/Contractor Representative

NANDI CONSULTANTS * PMC * SHIMOGA.

Client(AE/AEE/EE)

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF BITUMINOUS CONCRETE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Chainage/Location /Land Mark: Tested in site (3rd Main Road, Sharadha Nagara)

Date of testing: 17.09.2021

Type of Mix: Bituminous Concrete

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for Grade II Vide Table 500.17 Binder Content 5.4% min
2. Weight of Mixture after Test, gm	472.89	
3. Weight of Binder Extracted, gm	27.11	
4. Binder content in %	5.42	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 472.89 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500.17
19	0	0.00	0.00	100.00	100
13.2	28	5.92	5.92	94.08	90 - 100
9.5	51	10.78	16.71	83.29	70-88
4.75	77	16.28	32.99	67.01	53-71
2.36	65	13.75	46.73	53.27	42-58
1.18	44	9.30	56.04	43.96	34-48
0.6	52	11.00	67.03	32.97	26-38
0.3	36	7.61	74.65	25.35	18-28
0.15	42	8.88	83.53	16.47	12-20
0.075	39	8.25	91.78	8.22	4-10

Remarks:
The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

M/s. NANDI CONSULTANTS * SHIMOGA. * PMC

Contractor/Contractor Representative

Client(AE/AEE/EE)

Kamala Nivasa,
1st main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.
9880770762, 9980160007

Nandi Consultants

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF BITUMINOUS CONCRETE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Chainage/Location /Land Mark: Tested in site (8th Main Road Sharadha Nagara)

Date of testing: 18.09.2021

Type of Mix: Bituminous Concrete

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for Grade II Vide Table 500.17 Binder Content 5.4% min
2. Weight of Mixture after Test, gm	473	
3. Weight of Binder Extracted, gm	27	
4. Binder content in %	5.4	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 473 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500.17
19	0	0.00	0.00	100.00	100
13.2	36	7.61	7.61	92.39	90 - 100
9.5	87	18.39	26.00	74.00	70-88
4.75	72	15.22	41.23	58.77	53-71
2.36	59	12.47	53.70	46.30	42-58
1.18	34	7.19	60.89	39.11	34-48
0.6	30	6.34	67.23	32.77	26-38
0.3	31	6.55	73.78	26.22	18-28
0.15	35	7.40	81.18	18.82	12-20
0.075	54	11.42	92.60	7.40	4-10

Remarks:
The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

M/s. NANDI CONSULTANTS * SHIMOGA. *

Contractor/Contractor Representative

PMC

Client(AE/AEE/EE)

9880770762, 9980160007
Kamala Nivasa,
Main, 2nd Cross, Krushinagar, Shimoga 577204, Karnataka.

TEST REPORTS OF BITUMEN CONTENT & GRADATION DETERMINATION OF BITUMINOUS CONCRETE

Name of Client: Bruhat Bangalore Mahanagara Palike

Address: Yelahanka Division

Package No: Package - 13

Name of Work: Asphalting of Roads & Improvements to Footpaths at Someshwara Nagara, Sharada Nagara, MIG 3rd Phase and LIG sanitory core Yelahanka A sector, B Sector and Judicial Layout in Ward No.04 of Yelahanka new town sub division (Package No. 13)

Name Contractor: M/s Nidhi Constructions

Name of PMC: M/s Nandi Consultants, 1st Main, 2nd Cross, Krushinagar, Shimoga-577204

Chainage/Location /Land Mark: Tested in site (12th B Main Road B Sector)

Date of testing: 20.09.2021

Type of Mix: Bituminous Concrete

BITUMEN CONTENT DETERMINATION

Description	Sample 1	Requirements
1. Weight of Mixture before Test, gm	500	As per MORTH Specification for Grade II Vide Table 500.17 Binder Content 5.4% min
2. Weight of Mixture after Test, gm	472.68	
3. Weight of Binder Extracted, gm	27.32	
4. Binder content in %	5.46	

GRADATION AFTER EXTRACTION

TOTAL WEIGHT OF SAMPLE: 472.68 gms

SIEVE SIZE in mm	Weight Retained in gm	% Retained	Cumulative % Retained	% Passing	Requirements as per MORTH Specification Table 500.17
19	0	0.00	0.00	100.00	100
13.2	33	6.98	6.98	93.02	90 - 100
9.5	98	20.73	27.71	72.29	70-88
4.75	87	18.41	46.12	53.88	53-71
2.36	48	10.15	56.27	43.73	42-58
1.18	32	6.77	63.04	36.96	34-48
0.6	38	8.04	71.08	28.92	26-38
0.3	30	6.35	77.43	22.57	18-28
0.15	34	7.19	84.62	15.38	12-20
0.075	32	6.77	91.39	8.61	4-10

Remarks:

The tested sample is found to be satisfactory as it meets the requirements of the MORTH Specification/Project Requirement.

M/s NANDI CONSULTANTS SHIMOGA

Contractor/Contractor Representative

Client(AE/AEE/EE)